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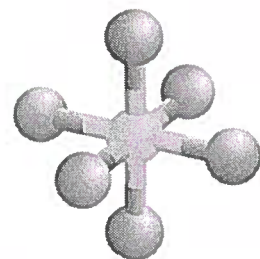
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Science 9
Chemistry**LG 6 – How do we name and write formulas for covalent compounds?****Concept 1: Names and formulas of covalent compounds reflect their molecular structure****Binary covalent compound:** a compound made up of the atoms of two elements joined by covalent bonds

- Example: sulfur hexafluoride (SF_6)

\rightarrow sharing electrons \rightarrow nonmetal + nonmetal

**Writing Names of Binary Covalent Compounds**

The names of binary covalent compounds have prefixes (Table 2.8) to indicate how many atoms of are present in one molecule of the compound.

- *Mono-* is used only for the second element in the name
- No prefix: *mono-* is implied (example: carbon monoxide)
- When *mono-* comes before *-oxide*, an "o" is dropped (*monoxide*, not *monooxide*)

Table 2.8 Prefixes Used to Name Binary Covalent compounds

Prefix	Number	Prefix	Number
mono-	1	hexa-	6
di-	2	hepta-	7
tri-	3	octa-	8
tetra-	4	nona-	9
penta-	5	deca-	10

Examples: NO_2 nitrogen dioxide

Prefix

ide ending
for second
element SF_6

sulfur hexafluoride

 H_2O

dihydrogen monoxide

CO

carbon monoxide

Dinitrogen tetroxide

 N_2O_4

Nitrogen monoxide

NO

Phosphorus tetrahydride

 PH_4

Hexaboron monosilicide

 B_6Si